

**TREATMENT OF VEGETABLE OILS OR ANIMAL FATS WITH  
SULFUR OR NITROGEN DONOR COMPOUNDS  
FOR ANIMAL FOOD FLAVORINGS**

**ABSTRACT OF THE DISCLOSURE**

Oils or fats from plants and/or animals are chemically treated to create flavor/palatability enhancer (FPE) products for use with animal foods, such as dog or cat food. This method involves mixing triglycerides (from the oil or fat) with sulfur and/or nitrogen donor compounds, such as sodium sulfide. The mixture is cooked at a temperature close to boiling, or higher if pressure-cooking is used, for a period of time sufficient to break down large numbers of triglyceride molecules into their constituent fatty acids and other fragments. Under suitable cooking conditions, the organic fragments will react with sulfur and/or nitrogen atoms from the donor compound(s), to form relatively small organic molecules containing sulfur and/or nitrogen. These cooked products can be used as FPE's for pet foods for dry kibbles or biscuits, either alone, or mixed with a standard base compound such as a hydrolyzed liver digest. Two-bowl comparison tests indicate that these FPE's are effective, and they do not suffer from unpleasant odors that would disturb pet owners. This method can be used to process various types of fatty or oily wastes created by food-service or manufacturing operations, and because the cooking process will totally sterilize the ingredients, it can be used with contaminated, adulterated, or partially-spoiled food substances that are not adequately safe for human consumption.

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